



**UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 10**

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OFFICE OF
ECOSYSTEMS, TRIBAL AND
PUBLIC AFFAIRS

November 20, 2009

Nancy Wittpenn, Environmental Project Lead
I-5 Corridor Reinforcement Project
PO Box 9250,
Portland, OR 97207

RE: U.S. Environmental Protection Agency (EPA) scoping comments on the Bonneville Power Administration (BPA), Department of Energy (DOE) Notice of Intent to Prepare an Environmental Impact Statement (EIS) for the I-5 Corridor Reinforcement Transmission Project. EPA Project Number: 09-059-BPA.

Dear Ms. Wittpenn:

The U.S. Environmental Protection Agency (EPA) has reviewed the Notice of Intent (NOI) dated October 13, 2009, regarding the I-5 Corridor Reinforcement Project in Cowlitz and Clark Counties, Washington, and Multnomah County, Oregon. Our review of the NOI was conducted in accordance with our responsibilities under National Environmental Policy Act (NEPA) and Section 309 of the Clean Air Act.

Section 309 specifically directs the EPA to review and comment in writing on the environmental impacts associated with all major federal actions. Under our Section 309 authority, our review of the draft EIS prepared for the proposed project will consider the expected environmental impacts, and the adequacy of the EIS in meeting procedural and public disclosure requirements of NEPA.

The NOI states that the Proposed Action would construct a new 500-kilovolt (kV) transmission line and associated substations. The new line would extend generally southeast from a new substation proposed near Castle Rock in Washington, to a new substation proposed near BPA's existing Troutdale Substation near the city of Troutdale in Oregon. The new line would be approximately 70 miles in length.

The scoping comments that follow are provided to inform the BPA of issues that EPA believes to be significant and warrant treatment during the NEPA process. Thank you for the opportunity to provide comments at this stage of the EIS development process. If you have any questions regarding our comments, please contact me at (503) 326-2859 or by electronic mail at kubo.teresa@epa.gov.

Sincerely,

A handwritten signature in black ink, appearing to read "Teresa Kubo", is positioned above the typed name.

Teresa Kubo, Acting Manager
Environmental Review and Sediment Management Unit

**EPA scoping comments on the BPA Notice of Intent to Prepare an
Environmental Impact Statement for the I-5 Corridor Reinforcement Project
November 20, 2009**

NEPA Issues

Purpose and Need

The EIS should specify the underlying purpose and need for the proposed transmission line, including discussion of the planning process, power needs, power markets, customer bases, power transmission technologies, cost-effectiveness, financing, energy conservation, and any other power transmission issues that may be appropriate.

The EIS should also include an adequate explanation of the rationale for the establishment of the analysis area boundary. An appropriate analysis area should encompass the potentially affected environment, and should be able to function as an appropriate unit of analysis for projecting anticipated impacts and for measuring actual effects.

Alternatives

We encourage the BPA to develop and evaluate alternatives that avoid as much as possible streams, riparian areas and wetlands and other environmentally sensitive areas, and that avoid fragmentation of wildlife habitat, as well as adverse social and economic impacts, including impacts to established farm and ranch operations. Use of existing right-of-way corridors are generally preferred to avoid disturbance to previously undisturbed areas, although potential routings to reduce impacts to environmentally sensitive areas or other significant environmental, social or economic impacts may need to be considered. Disturbance to soils and vegetation during construction, and impacts to rivers, streams, water quality, fish, wildlife and scenic, recreation, or cultural resources should be avoided and/or minimized as much as possible. Burial of the transmission lines should be considered in areas with scenic values to reduce visual impacts, though we recognize that transmission line burial could result in additional impacts to soils and vegetation as well as increased construction costs.

We recommend that tables, maps, figures, charts, photos, etc., be used as much as possible and wherever appropriate to present and display specific features of alternatives so that features of the different alternatives can be clearly understood, and then evaluated in a comparative manner. We recommend that an alternatives matrix table that summarizes major features and significant environmental impacts of alternatives be provided to facilitate understanding of the alternatives, particularly distinctions between alternatives, and provide comparative evaluation of alternatives in a manner that sharply defines issues for the decision maker and the public to make in regard to a reasoned choice among alternatives.

Affected Environment/Existing Conditions

The EIS should succinctly describe the affected environment and existing conditions using appropriate scales within the analysis area (e.g., watershed analysis where applicable). The EIS should identify and discuss:

- Power line right-of-way, power needs, customer bases, power markets, power transmission technologies, the likely present and future energy generation units to be served by the transmission line, energy conservation, cost-effectiveness, financing, and any other appropriate power transmission issues.
- Environmental conditions along alternative transmission line routes should be described (i.e., characterize aquatic, biological and other environmental resources which have a potentially greater importance or sensitivity to impacts). Resources where existing knowledge of the resource or its sensitivity is currently lacking should be identified, and efforts should be made to collect needed information (e.g., conduct field surveys), and/or explain why such information is unavailable and cannot be obtained.
- Land uses and social and economic conditions along potential transmission line corridor routes and potential conflicts and controversies in regard to land use, social and economic issues should be described.

Baseline resources information should characterize the biological and physical environment and the social and economic conditions sufficient to determine adequacy of data and information for evaluating potential environmental, social and economic impacts. This is needed to support transmission line construction and operation recommendations relative to resource protection, disclosure of mitigation measures, cumulative impact analysis, and to provide a reference for subsequent monitoring. Resources for which existing knowledge of the resource or its sensitivity is currently lacking should be identified, and efforts should be made to collect needed information (e.g., conduct field surveys), and/or explain why such information is unavailable and cannot be obtained.

Environmental Consequences

The EIS should comprehensively analyze and disclose the environmental, social and economic impacts of the transmission line construction and operation alternatives, and the likelihood of success and effectiveness of the proposed mitigation measures. The analysis of environmental consequences should include the effect of implementing the alternative on the physical, chemical and biological resources such as air and water quality, biologic components or ecosystems, and include impacts within the entire analysis area resulting from activities on all land ownerships. We believe the environmental consequences section should include evaluations of potential impacts on water quality, fisheries, river/stream hydrology, wetlands, ground water aquifers, vegetation, wildlife, biodiversity, air quality, public health, historic and cultural resources, social and economic effects, and connectivity to other projects. It should also discuss unavoidable adverse environmental effects, short-term and long-term environmental considerations, and any irreversible or irretrievable commitments of resources which would be

involved with the alternatives should they be implemented. This section should address (40 CFR 1502.16):

- a. Direct effects and their significance.
- b. Indirect effects and their significance.
- c. Possible conflicts between the proposed action and the objectives of Federal, regional, State, and local (and in the case of a reservation, Indian tribe) land use plans, policies and controls for the area concerned.
- d. The environmental effects of alternatives including the proposed action.
- e. Energy requirements and conservation potential of various alternatives and mitigation measures.
- f. Natural or depletable resource requirements and conservation potential of various alternatives and mitigation measures.
- g. Urban quality, historic and cultural resources, and the design of the built environment, including the reuse and conservation potential of various alternatives and mitigation measures.
- h. Means to mitigate adverse environmental impacts.

It is also important that environmental analysis conducted during the EIS process be integrated with other planning and environmental review procedures (e.g., permitting requirements) so that all such procedures run concurrently rather than consecutively (40 CFR 1500.2(c)). The DEIS should list all Federal permits, licenses and other entitlements which must be obtained in implementing the proposal (40 CFR 1502.25).

Cumulative Impacts

EPA has issued guidance on how we are to provide comments on the assessment of cumulative impacts, *Consideration of Cumulative Impacts in EPA Review of NEPA Documents*, which can be found on EPA's Office of Federal Activities home page at: <http://www.epa.gov/compliance/resources/nepa.html>. The guidance states that in order to assess the adequacy of the cumulative impacts assessment, five key areas should be considered. EPA tries to assess whether the cumulative effects analysis:

1. Identifies resources if any, that are being cumulatively impacted;
2. Determines the appropriate geographic (within natural ecological boundaries) area and the time period over which the effects have occurred and will occur;
3. Looks at all past, present, and reasonably foreseeable future actions that have affected, are affecting, or would affect resources of concern;
4. Describes a benchmark or baseline;
5. Includes scientifically defensible threshold levels.

Resource Issues

Water Resources

The EIS should clearly describe water bodies in the analysis area that may be impacted by project activities, and describe relationships between local waters and proposed transmission line construction activities. Identifying affected watersheds and streams and aquifer areas on maps of the various alternatives helps convey their relationship with project activities.

The EIS should identify the existing uses (type, amount and location) of waters potentially impacted by proposed transmission line construction and operation activities, and the applicable water quality standards (WQS) for such waters. Existing baseline watershed and water quality conditions should be summarized where water quality impacts may be expected, since baseline water quality data and beneficial use support are key in the evaluation of impacts. Water quality impacts include chemical, physical and biological effects. The EIS must demonstrate that impacts to surface and ground water, riparian areas, wetlands, and aquatic species will be adequately mitigated, and that applicable WQS will be maintained.

The EIS should discuss the capability of surface and ground water resources to assimilate point and non-point pollution from the project. A discussion of relevant project area geology, topography, soils and stream stability in terms of erosion and mass failure potential may be necessary to adequately portray the potential risk to water quality, aquatic habitat and other resources from the implementation of specific transmission line construction alternatives. In particular erosion concerns during construction should be addressed. EPA recommends that areas of high erosion risk should be avoided.

The EIS should indicate whether any streams in the area have particular fisheries issues and values (e.g., aquatic species habitat, condition, productivity, and quality of habitat, connectivity, spawning or nursery area, or a conservation priority or population stronghold for a listed or sensitive species; identify presence of any threatened and endangered species or species of special concern, barriers to fish migration). The EIS should identify if fisheries could be impaired by transmission line construction activities, including access roads.

303 (d) listed Waters and Total Maximum Daily Loads (TMDLs)

The EIS should identify any water bodies listed on Washington State's CWA 303(d) list along the transmission line corridor that may be affected by transmission line construction and operation, as well as the magnitude and sources of impairment. We suggest contacting the Washington Department of Ecology to identify and validate waterbodies that are listed by the States as impaired or threatened. It is important that proposed transmission line construction and operation activities be carried out in a manner that avoids further degradation of 303(d) listed waters, and consistent with TMDLs and Water Quality Restoration Plans prepared, or being prepared, by the State to restore water quality.

Wetlands

Transmission line construction activities should avoid or minimize impacts to streams and wetlands. Wetlands that may be affected by proposed transmission line construction and operation should be identified, and potential impacts on wetland functions should be assessed. We recommend establishment of wetland and riparian habitat buffer zones to avoid adverse impacts to streams, wetlands, and riparian areas.

Wildlife

The EIS should evaluate impacts to wildlife and wildlife habitat from transmission line construction and operation. Affected environment sections should include current quality and capacity of wildlife habitat and usage near the proposed project, and known wildlife corridors/trails that may be affected. Wildlife habitat characteristics, security, displacement, fragmentation, connectivity, and wildlife movement corridors should be assessed and disclosed. Wildlife habitats should be maintained, and degraded habitats restored. Measures to mitigate adverse impacts to wildlife should be described.

There may be particular concerns regarding power line impacts upon avian species. Standards for transmission line support structures should conform to Practices for Raptor Protection on Power Lines. Monitoring may need to be considered to determine if bird strikes or electrocutions of birds occur as a result of this project. Field surveys are recommended to locate birds which have been electrocuted or have struck transmission lines to aid in identifying and modifying problem structures. We note that shield wires are often struck by birds in flight and efforts should be made to include design and mitigation measures to reduce potential impacts to birds.

The EIS should describe coordination with the U.S. Fish and Wildlife Service (USFWS) and the Washington and Oregon Departments of Fish and Wildlife (WDFW and ODFW) to assess whether any aspect of the proposed project may affect listed threatened or endangered species or their designated and proposed critical habitat.

Other Resource Issues and Concerns

Noxious Weeds

Among the greatest threats to biodiversity is the spread of noxious weeds. Many noxious weeds can out-compete native plants and produce a monoculture that has little or no botanic diversity or benefit to wildlife. The EIS should identify the noxious weeds/exotic plants that occur along the transmission line routes; discuss the magnitude and occurrence of the weed infestations; and control measures and strategies for weed management, prevention, and early detection of invasion along transmission line right-of-way corridors.

Potential mitigation measures for preventing the spread of noxious weeds include the following:

1. Clean equipment tracks and tires prior to transportation to an uninfested site
2. Reseed and renegotiate disturbed sites early
3. Use only weed free certified seed

Electromagnetic Field /Public Health

There can be public health concerns regarding electric fields created by a high-voltage transmission lines. Potential electromagnetic fields (EMF) field effects can include induced currents, steady-state current shocks, spark discharge shocks, and in some cases field perception and neurobehavioral responses. The DEIS should disclose any concerns regarding public health or environmental effects from EMF generated by the transmission line. Potential EMF buffer needs for the transmission line must be evaluated if the transmission line would be located near residences or other public facilities.

Social and Economic Effects

The EIS should also discuss the social and economic consequences of proposed power line construction, including effects on the local economy, job additions and losses, tax base and funding, public uses and recreation, local development, etc. The effects of the proposed facility and alternatives on community facilities, programs, systems, infrastructure of communities, and local agricultural operations along the alternative transmission line routes should be assessed and disclosed.

Historic and Cultural Resources

Section 106 of the National Historic Preservation Act (NHPA), 16 U.S.C. § 470f, requires that federal agencies consider the effects of a Federal action on historic properties and determine whether the undertaking has the potential to affect historic properties. Historic properties include the archaeological, paleontological, native religious and other cultural resources in an area. If there is a potential to affect historic or cultural resources from construction of this transmission line, BPA should coordinate and consult with the State Historic Preservation Officers and other appropriate entities. The EIS should identify historical, archaeological, paleontological, native religious, sacred or other cultural resources that may be affected. Knowledge of the presence or absence of significant cultural resources in the project area and along alternative sites may be important for a reasoned choice among alternatives. All possible efforts should be made to avoid impacts to significant historic and cultural resources.

Environmental Justice

Consistent with E.O. 12898, "Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations," Federal agencies are required to make environmental justice part of their missions by identifying and addressing, as appropriate, disproportionately high and adverse human health and environmental effects of its programs, policies, and activities on minority populations (e.g. Native American) and low-income populations. Environmental justice issues may encompass a broad range of impacts covered by

NEPA, including impacts on the natural or physical environment and interrelated social, cultural, and economic impacts.

The BPA should develop a strategy for effective public involvement of minority and low-income populations in power line considerations, analyzing environmental, social, cultural and economic effects, and developing mitigation measures.

Consultation with Tribes

If the proposed action will impact Tribes in the area, then the EIS should identify the impacts, and provide assurance that the tribes' treaty rights and privileges have been addressed appropriately. Consultation with all affected tribal governments is stipulated in the Executive Order (EO) 13175 (*Consultation and Coordination with Indian Tribal Governments*). This order states that the U.S. government will continue "to work with Indian tribes on a government-to-government basis to address issues concerning Indian tribal self-government, trust resources, and Indian tribal treaty and other rights." The CEQ also strongly urges federal agencies to consider inviting affected tribal governments to participate in proposed projects' development process as cooperating agencies. This would establish a mechanism for addressing intergovernmental issues throughout the project development process.